MENTOR | The Journal of Business Studies
Faculty of Commerce and Management, Eastern University, Sri Lanka
JBS

Factors Influencing on Environmental Accounting Practices of Hotels: A Case From Eastern Province in Sri Lanka

R. Shathurshana[a]*, V. Anputhasan[b]
[ab]Department of Business and Management Studies, Trincomalee Campus, Eastern University, Sri Lanka

Received: 13th February 2024

Reviced: 16th July 2024

Accepted:22nd August 2024

Published: 05th February 2025

Keywords:

Environmental accounting
Level of awareness
Hotels in Eastern Province
Sri Lanka

ABSTRACT

This research article aims to identify the factors that help to implement the environmental accounting concept for the eastern province hotel industry by examining selected hotels' perceptions of the level of awareness, hotel-related factors, incentive level, and availability of qualified human resources. The quantitative method was followed in the study. The primary data were collected by sharing online questionnaires among the top and middle employees in the hotel of the eastern province of Sri Lanka. The data gathered were analysed using the SPSS software, which employed correlation and regression analysis to analyse the data. The results indicated the overall level of awareness is 42.9%, while hotel-related factors amount to 24.5% and the availability of qualified human resources is equivalent to 16.2%. All three factors positively impact the adoption of environmental accounting within hotels in the eastern province of Sri Lanka. Policies, practices, and motivations promote the future development of environmental accounting and sustainability practices in the Sri Lankan context. This study provides empirical evidence about the influential factors on the application of environmental accounting, thereby helping hotel management businesses develop and communicate policies affecting these factors to promote the application of environmental accounting in hotels in the eastern province of Sri Lanka.

*Corresponding shathurshikrishna@gmail.com

1. Introduction

Immediate industrialisation and increased globalization have led to far-reaching, destructive effects on the natural environment, such as environmental pollution, contamination, and sharp depletion of natural resources. Companies, as a major source of environmental degradation (Afshar and Brem, 2018), are now anxious about experiencing necessary reforms that guarantee environmental protection while reaching their

financial goals (Zhou et al., 2018). Thus, sustainable development has become vital for every organization to persist in the contemporary era (Tu and Huang, 2015). Scholars have forwarded various ideas to elevate sustainable development. Environmental (green) accounting is one concept that aims to include the cost of the ecological impact of companies' operations in traditional accounting systems (Al-Hayek, 2013; Bandara and Hettiaratchi, 2010; Chathurika and Kalpani, 2020; Gunarathne, et al., 2016).

Environmental accounting is a growing field that aims and deliver vital information on environmental expenses and revenues, and guides businesses and project owners in creating economic decisions, promoting them to take measures to use natural resources, including natural resources created by man, effectively and minimizing environmental damage, minimizing waste and pollution, and changing behaviours towards the living environment (Nguyen, 2021).

Increasing environmental awareness, as well as changes in tourism demand, make hotels execute environmentally sustainable business practices that require reliable tools to assess the impact of the hotel on the environment, of which environmental management techniques and environmental accounting are emphasized (Janković and Krivačić, 2014). Hence, accounting must find practices, document, and systematically follow up on environmental issues. Therefore, it is justified to raise the category of environmental costs, and thus a new branch of accounting that would recognize, generate, allocate and investigate these costs, and thus furnish qualitative and quantitative information on material and energy flows. The idea of environmental accounting emphasizes the efficiency and effectiveness of resource help in ensuring a sustainable economy that is inspired by the publicity and development of value systems such as “clean” technology, health outcomes and processes. Additionally, the green concept has emerged from the desire to achieve a socially responsible relationship with the company that will be in the function of achieving sustainable development goals (Nguyen, 2021).

Besides, "Almost 35% of hotels function without proper regulations," estimated a hotelier by profession, when considering the environmental issues, the hotel industry's highly generating environmental cost will consume a high amount of energy from non-renewable resources, drinking water consumption, and solid waste and wastewater (Janković and Krivačić, 2014). Sri Lankans generate about 0.62 kg of solid waste per day on average (Vishwanath and Trankler, 2003). This unscientific and unsanitary approach has resulted in several environmental and health threats in both developing and least-developed Asian countries, largely owing to the high organic composition of the waste (Vishwanath and Trankler, 2003; Glawe et al., 2005; Sharholy et al., 2008) studies revealed that the hotel industry produces 53.607 tons of municipal solid waste per year.

Local authorities in Sri Lanka have no abnormality; there is a very high percentage of organic matter in the waste even in favourably metropolitanism sites (Bandara, 2008). Elevated organic matter associated with high moisture content in the waste, as observed in Sri Lanka, leads to highly polluting mine water causing surface and groundwater pollution (Pilapitiya, 2012). Unacceptably high acidic levels have been found in groundwater at a former solid-waste dumpsite in Sri Lanka; even the samples obtained from the surroundings

of this locality had chemical oxygen demand levels far above patient limits (Bandara and Hettiaratchi, 2010). Moreover, on the same topic, research was conducted on different sectors like rubber, apparel, and listed companies (Gunathilaka and Gunawardana, 2019; Nethsarani and Samudrage, 2021; Chaturika and Kalpani, 2020).

It is an opportunity for Eastern Sri Lankan hotels to continue to invest and develop. Nguyen, (2021) stated that environmental accounting becomes a tool to help managers run their businesses better and reduce and control costs more effectively, bringing financial benefits and competitive advantage. There is massive competition for businesses, especially hotel businesses, in the current globalization problem. In that context, environmental accounting is an essential tool to help business administrators successfully implement environmental accounting for sustainable development.

This study adds value to prior research conducted in Sri Lanka by providing an in-depth analysis of environmental accounting practices within hotels in the Eastern Province. This focus is particularly novel, as the fundamental concepts, values, and opportunities associated with environmental accounting are not widely understood. Consequently, environmental accounting has emerged as a crucial topic for scholarly discussion. This study aims to identify the factors contributing to the non-application of environmental accounting and the lack of disclosure of environmental accounting data within key sectors, such as the hotel industry.

Problem statement

Especially in Sri Lanka, the Environment Ministry has found five main issues: land degradation, waste disposal, pollution of inland waters, loss of diverseness, and depletion of coastal resources (Gunarathne et al., 2015). Solid waste disposal and management became a significant environmental issue in the country that has caused various negative ecological impacts like ground and surface pollution and decaying away. The insufficient effective environmental laws and inadequate enforcement, besides inconsistent and weak policies, have created several ecological challenges in the state (Gunarathne et al., 2015). One of the findings stated that countries worldwide especially developing countries have faced increasing waste in urban areas and specifically in Sri Lanka, wastage in urban areas has become a significant issue. In developing countries, this issue is created due to the unawareness of disposal systems in companies and households (Chaturika and Kalpani, 2020).

In Sri Lanka, waste disposal has become a serious environmental and public health hazard. According to the Central Environmental Authority, the daily generation of municipal solid waste increased to between 6,500 and 7,500 tonnes by 2017. This issue was brought to the forefront after the tragic Meethotamulla garbage dump collapse in Colombo on April 14, 2017, which resulted in the loss of life and heightened awareness regarding the need for improved waste management and disposal practices (Central Environmental Authority, 2017). The disaster underscored the urgency of addressing waste management within local contexts, particularly in densely populated urban areas and sectors like hospitality that contribute significantly to waste accumulation.

The management of industrial solid waste in Sri Lanka requires systematic approaches to minimize environmental impacts, including the contamination of soil and water resources. Environmental management accounting, as practised by Sri Lankan enterprises, provides a framework for tracking and addressing the costs associated with waste management and environmental preservation. These practices can lead to more sustainable management of toxic materials and hazardous waste, thereby helping to mitigate potential risks to the ecosystem (Gunarathne et al., 2015).

Here's a revised version of the provided text, rewritten for clarity, conciseness, and improved academic tone with correct and relevant citations based on the information provided. Organizations must take responsibility for managing their industrial waste, with a particular focus on hazardous materials. Local governments often provide guidance, including counselling and consulting, to help companies adopt more environmentally friendly waste management practices and reduce emissions. Corrective actions are necessary for companies that fail to comply with waste management standards, ensuring proper disposal methods are in place to minimize environmental harm (Gunarathne et al., 2015).

In Sri Lanka, the National Sustainable Tourism Certification (NSTC) is an essential step towards promoting sustainability within the tourism sector. On August 5, 2019, hotels across the country were awarded for exemplary sustainable practices, though only 2.5% of these awards went to hotels in the Eastern Province, highlighting a regional disparity in sustainable tourism initiatives (The Associated Newspapers of Ceylon, 2019). Dr Mihee Kang, Director of Asia-Pacific for the Global Sustainable Tourism Council (GSTC), emphasized that "Tourism consumes significant energy in water, food, and environmental resources, impacting both sensitive ecosystems and society. To mitigate negative impacts, sustainable practices are essential, respecting nature, culture, and communities" (Definition of communication, 2019). Research underscores the potential for energy savings in the hospitality industry, suggesting a 20% reduction in both energy and water use through resource-efficient practices. Similarly, waste generation can be reduced by up to 20% by adopting these best practices, making environmental accounting a valuable tool for sustainability in the hotel sector. Environmental accounting provides a framework to monitor and assess environmental costs and resource usage, thereby supporting hotels in sustainable decision-making (Gunarathne et al., 2015).

Studies have indicated the importance of understanding country-specific factors that influence the adoption of environmental accounting in both developed and developing nations. Van Der Poll, (2022) notes that key factors influencing environmental accounting adoption are not fully addressed, particularly within emerging sectors. As a response, recent studies have explored these factors across industries, such as manufacturing and hospitality, to identify the drivers and barriers to environmental accounting adoption (Ariffin and Mohd, 2016; Chathurangani and Madhusanka, 2019). Identifying the specific factors that impact environmental accounting in the Eastern Province's hotel sector can enhance adoption rates, ultimately promoting sustainable development. This study seeks to investigate these influential factors in the context of hotels in

the Eastern Province, addressing a gap in quantitative research on environmental accounting practices within this region.

2. Literature Review

Environmental Accounting represents the incorporation of environmental costs into the accounting system of a business organization. According to the United Nations Environment Programme and KPMG (2006), environmental accounting is a system that furnishes a common framework for firms to recognize and account for past, present, and future environmental costs to support managerial decision-making, control, and public disclosure. Voluntary disclosure theory states that the goal of voluntary revelation is for environmental practices information to be given to shareholders (Bewley and Li, 2000). Corporations effectively utilize the target environment to communicate information, hoping that the contents of the environmental performance announcement can be positively connected to the environmental performance. By disclosing environmental information, companies aim to transfer their environmental approach to shareholders (Clarkson et al., 2008).

This theory explores institutional forces, such as shaping corporate structures and measures of government, professional agencies, and society around organizations. Three possible pressures are coercive, mimetic, and normative. Contingency theory emphasizes “the role and influence of situational factors on the performance of businesses” (Lawrence and Lorsch, 1967). The theory explains the relationships between the influencing factors and the results based on analysing the behaviour and activities of the enterprise and, in the meantime, describing the specific situational factors, such as environment, technology, experience, and size, that can affect the above relationship.

Working capital refers to the residue of current assets over current liabilities. A corporation's working capital can be referred to as the firm's investment in short-term assets, cash and cash equivalents, account receivables, short-term or saleable securities, and inventories. In other words, it is the grouping of all current assets, less current liabilities (Kabir Yazid Ibrahim, Muhammad Usaini, & Sunday Elijah, 2021). Many government interventions to control externalities have taken the form of command-and-control law, which requires that actors undertake specific activities and apply punishments if they do not comply. In contrast, incentive-based policies manage externalities by changing the economic incentives private actors face while permitting those actors to decide whether and how much to modify their behaviour. Most incentive-based instruments have been initiated through public policies, although privately bargained incentive-based solutions are possible. Incentive-based mechanisms include costs (such as taxes, user payments, and deposit–repayment systems), subsidies, tradable permits (including markets for pollution reduction and tradable development rights), and market conflict reduction (e.g., liability rules and information programs) (Jack, Kousky, & Sims, 2008).

The qualifications of accountants are reflected in the qualifications, knowledge, and skills they develop through education and training. The function of environmental accounting is to provide financial and non-financial environmental information to stakeholders. To perform that function, accounting staff must have

knowledge and skills in recording, measuring, presenting, and disclosing environmental information. Accountants must measure and allocate environmental costs precisely to overcome the weaknesses of traditional accounting, but this is challenging (Ha, 2022). Empirical Review One of the studies conducted to identify the environmental management accounting practices and their diffusion in Sri Lankan organizations was a qualitative study by Gunarathne et al. (2016). The study is mainly based on the authors' experience with environmental management accounting practices.

According to the study, different environmental management accounting practices are implemented by different Sri Lankan enterprises. The study covers environmental management accounting practices used in the apparel, hotel, manufacturing, and plantation industries while accounting for energy, materials, water, carbon, biodiversity, and life cycle costing, which are mainly identified as environmental management accounting practices used by those enterprises. The findings showed that there is a rapid spread of implementation of environmental management accounting practices. However, the adoption seems to be a solo practice, requiring a high level of commitment and support from the organization's top management. Universities and professional accounting bodies play an active role in promoting the awareness of environmental management accounting practices in organizations and their benefits to the organizations as well as society.

Another study was conducted to examine why and to what extent a service sector organization (hotel) in Sri Lanka adopts and implements environmental accounting management practices. The study identified that the hotel had intensified its environmental management practices in an urgent, cost-saving bid when faced with a financial crisis. These practices are basic and straightforward but have been applied with continuous commitment. Further, they are now well supported and confirmed through environmental practices (Gunarathne, 2013). The company facilitates compliance efficiency by complying with the environmental regulations implemented by the governing entities of a country and by following the code of ethics. Achieving eco-efficiency, reduction of costs, and more efficient use of environmental resources are fundamental aspects. The term eco-efficiency must be linked to the entity's shareholders and the business performance (Gunarathne et al., 2016). Environmental accounting is considered a prominent part of the decision-making process when directing the company's strategic guide. Companies often use environmental accounting in their marketing strategy to attract environmentally conscious investors, customers, and suppliers (Gunarathne et al., 2016). These findings concluded the importance of EA practices to enterprises.

One more study focused on the factors affecting the implementation of environmental accounting in manufacturing enterprises from the stakeholders' perspective in Vietnam. The findings revealed that five key factors affecting the effective implementation of environmental accounting in manufacturing enterprises are organized in descending order: Pressure from stakeholders; Business nature; Qualification of accounting staff; Managers' perception of environmental accounting; and firm size. At the same time, the study also examined the differences in the surveyed subjects' perceptions of the influence of factors on the implementation of environmental accounting in enterprises (Hoan, 2022). However, Lam (2019) recognized

six factors impacting environmental information disclosure in Vietnamese aquaculture enterprises, including supervision of environmental management agencies; accountant qualifications in environmental accounting; managers' attitude toward environmental protection; environmental accounting guidelines; government, importer, investor, financial institution, and community pressure; and the benefits of environmental accounting.

One of the papers aims to determine the degree of influence of factors on the application of environmental accounting by small and medium enterprises in Vietnam. The research results show four factors affecting environmental accounting: pressure from stakeholders, manager's perception, the relationship between costs and benefits, and the qualifications of accountants. Findings revealed that these four factors positively affect the implementation of environmental accounting. On that basis, the study makes some recommendations to encourage small and medium enterprises to apply environmental accounting and proposes research directions for the future (Hoan, 2022). A recent study examined the factors affecting the implementation of environmental management accounting (EMA) in manufacturing enterprises in Vietnam's pulp and paper industries. Findings revealed that coercive pressure, normative pressure, awareness of the benefits of applying environmental management accounting, environmental strategy, managers' perception, and qualifications of accountants have a positive impact on environmental management accounting implementation. Coercive pressure had the most substantial impact, while awareness of the benefits of applying environmental management accounting had the weakest impact on implementation in these enterprises (Nguyen, 2021).

The results of the current study coincide with several studies like Hanan (2014), Saleh (2015), and Al-Hayek (2013), which indicate that administration and accountants lack awareness and understanding of the application of environmental accounting and environmental auditing and do not accomplish it accurately, although they have sufficient knowledge about the requirements of environmental disclosure, internal environmental auditing, and the barriers that prevent application. The results concluded that the level of awareness of employees and management impacts the implementation of EA practices.

The successful implementation of environmental programs begins with environmental knowledge, understanding, and information released from top management to lower-level employees. Therefore, managers must learn more about any relationships between environmental knowledge and employee ecological actions. Understanding which environmental determinants affect hotel employees' behaviour in implementing green practices is critical to successfully implementing hotel environmental programs. One study reveals that environmental-related knowledge positively influences environmental concerns and ecological behaviour. In addition, employee environmental awareness mediates the relationship between environmental knowledge and concern, while environmental awareness and concern mediate the relationship between environmental knowledge and ecological behaviour (Chan et al., 2017).

The following study identifies an influence of the level of awareness between management and employees on environmental accounting practices implementation in a hotel. Janković & Krivačić (2014) stated that increasing environmental awareness and transformations in tourism need to force hotels to execute environmentally sustainable business practices that mandate reliable mechanisms to assess the impact of the hotel on the environment, of which environmental management strategies and environmental accounting are emphasized.

The application of environmental accounting is influenced by factors related to the company. The size of the company's assets, production, working capital, geographical location, and the nature of the activity all impact the environmental accounting application. Environmental accounting incorporates all areas of accounting that may be influenced by a firm's reaction to environmental issues, including the new location of environmental accounting (Gray et al., 1993). The implementation of environmental accounting in the hotels in the Aqaba Special Economic Zone is greatly affected by hotel-related factors such as location, capital turnover, the kind of business the hotel performs, its proximity to residential areas, and the implementation of environmental accounting directly affects the business cycle of the hotel (Saleh et al., 2018). One of the findings suggests that the significant obstacles to executing and maintaining environmental sustainability in the Australian hotel industry are time, financial challenges, availability of human resources, and the views and compulsory of hotel owners and shareholders (Chou et al., 2020). The findings correlate with those (Abeydeera & Karunasena, 2019), which state that the hotel industry, particularly in Sri Lanka, has contributed to environmental costs, including waste disposal and energy consumption.

3. Research Methodology

A quantitative research approach was employed to identify the influential factors of environmental accounting and its adaptation within the hospitality industry in the Eastern Province of Sri Lanka. This study focuses on investigating the factors influencing the implementation of environmental accounting practices in hotels in this region. The population for the study consisted of 252 hotels in the Eastern Province (Eastern Provincial Council, 2021). Data was collected using an online questionnaire, distributed to hotels via their official email addresses. The survey was completed by managers, operational managers, chief accountants, assistant accountants, as well as other prominent staff and subordinates within the accounting department, along with key personnel from information technology, marketing, and human resources departments.

The questionnaire was adapted from existing research and tested for reliability and validity, with minor modifications made to suit the context of this study (Saleh et al., 2018). Responses were measured using a 5-point Likert scale. The hypotheses of the study were tested using SPSS for statistical analysis.

Conceptual framework

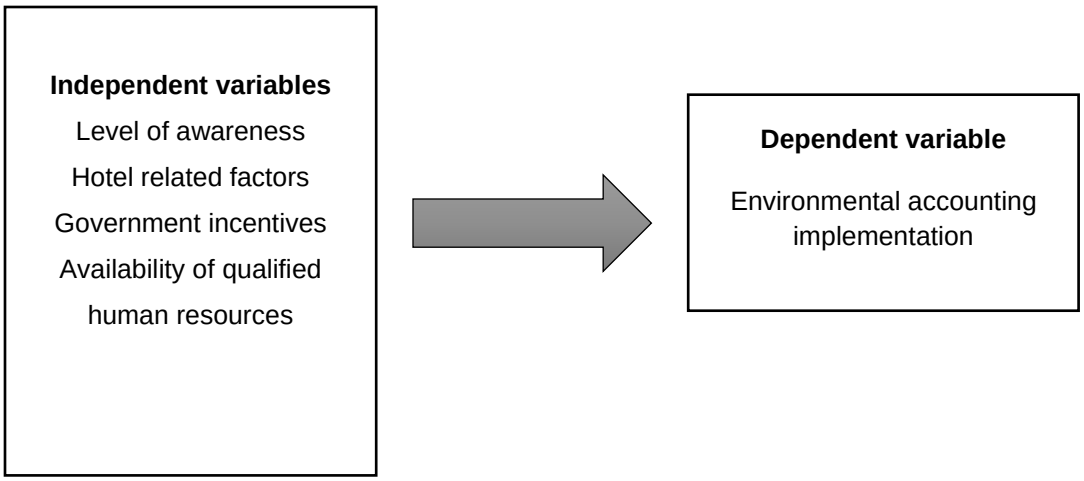

Figure 3: Conceptual framework of influential factors of environmental accounting in hotels in Eastern Province

Note. Adapted from Saleh et al. (2018)

To assess the impact of factors on environmental accounting in hotels in the eastern province of Sri Lanka, the study uses 7 detailed hypotheses as follows:

H_1a. There is a significant level of relationship between the awareness level of employees on environmental accounting to implement practices in the hotels in eastern province.

H_2a: Level of awareness has a significant influence on environmental accounting to implement practices in hotels in the eastern province.

H_3a: factors such as capital, location and nature of business have a significant relationship between environmental accounting to implementation practices in hotels in the eastern province.

H_4a: factors such as capital, location and nature of business have a significant influence on the environmental accounting to implement those practices in hotels in the eastern province.

H_5a: There is a significant relationship between government incentives received by hotels and Environmental accounting procedures to implement the practices in hotels in the eastern province.

H_6a: Government incentives have a significant influence on environmental accounting to implement those practices in hotels in the eastern province.

H_7a: There is a significant level of relationship between the availability of qualified human resources and environmental accounting to implement those practices in hotels in the eastern province.

H_8a: The availability of qualified human resources influences environmental accounting to implement those practices in hotels in the eastern province.

4. Analysis and Discussion

Testing scale

Cronbach's Alpha coefficients examine the degree of correlation between observed variables in the same factor included in the research model. Table 1 results show that all variables have Cronbach's alpha coefficients > 0.6, so the scales can be used well and reliably & the results of this analysis will be considered acceptable if their Cronbach alpha value is greater than 60% (Sekaran, 1992). Refer table Table 1 Cronbach's alpha test.

Table 1 Cronbach's alpha test

Variable	No of components	Cronbach alpha value	Percentage
Level of awareness	11	0.796	79.6
Hotel related factors	5	0.801	80.1
Government incentives	7	0.749	74.9
Availability of qualified human resources	5	0.757	75.7
Implementation of Environmental Accounting	4	0.743	74.3
Total Reliability	**32**	**0.921**	**92.1**

Factor analysis

The scales used in this study were adapted from previous research and modified to align with the specific conditions of the Eastern Province of Sri Lanka. An Exploratory Factor Analysis (EFA) was conducted using Principal Component Analysis (PCA) with Varimax rotation for the independent observed variables. PCA was chosen for its ability to simplify the data structure, facilitating the identification of key variables and the detection of outliers. The analysis was performed to refine the structure of the variable groups, evaluate their intersection and discriminant validity, and eliminate variables that were deemed to have no practical significance.

The test results, as shown in Table 2 , indicate a Kaiser-Meyer-Olkin (KMO) value of 0.875, which is well above the acceptable threshold of 0.5, suggesting that the data is suitable for factor analysis. Furthermore, Bartlett's Test of Sphericity yielded a significance value of 0.000 ($p < 0.05$), confirming that the observed variables are significantly correlated and appropriate for the analysis. The total variance explained by the factors was 57.528%, which exceeds the recommended 50%, indicating that the extracted factors account for a substantial proportion of the variance in the observed variables. Additionally, the eigenvalue for the factors was greater than 1 (Eigenvalue = 1.252), further supporting the adequacy of the factor structure (Anderson & Gerbing, 1988). Factor loadings for all variables were found to be above the threshold of 0.4, confirming the factors'

reliability and significance. Following the EFA process, the proposed final scale includes 26 observed variables. Refer the Table 2 The results of factor analysis of independent variables.

Table 2 The results of factor analysis of independent variables

Rotated Component Matrix				
	Component			
	1	**2**	**3**	**4**
LA 1	0.727			
LA 2	0.715			
LA 3	0.694			
LA 4	0.694			
LA 5	0.69			
LA 6	0.684			
LA 7	0.669			
LA 8	0.638			
LA 9	0.557			
LA 10	0.511			
LA 11	0.502			
LA 12	0.441			
HRF 13		0.793		
HRF 14		0.719		
HRF 15		0.707		
HRF 16		0.695		
HRF 17		0.627		
GI 18			0.746	
GI 19			0.713	
GI 20			0.632	
GI 21			0.608	
GI 22			0.478	
AQH 23				0.824
AQH 24				0.736
AQH 25				0.497
AQH 26				0.479
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.			**KMO**	**0.875**
Bartlett's Test of Sphericity			**Sig.**	**0.000**
Extraction Sums of Squared Loadings			**Total**	**1.252**
			Cumulative%	**57.528**
Extraction Method: Principal Component Analysis.				
Rotation Method: Varimax with Kaiser Normalization.				

Correlation analysis

The correlation analysis results showed a significant relationship and positive correlation among the independent variables (level of awareness 0.655, hotel-related factors 0. 495. government incentives 0.239 & availability of qualified human resources 0.403) & dependent variable environmental accounting. Based on the significance level Sig. (2-tailed) the hypothesis was tested, and all null hypotheses were rejected. The Pearson correlation analysis results show a close correlation between the dependent variable and the independent variable in the model. The independent variables in the matrix have strong and moderate correlation coefficients and have values Sig. < 0.05, this suggests that independent variables are more likely to be able to account for each other. The summary correlation refers to Table 3, Summary of correlation between dependent and independent variables.

Table 3 Summary of correlation between dependent and independent variables

		EA	**Level of awareness**	**Hotel related factors**	**Government incentives**	**Availability of qualified human resource**
EA	Pearson Correlation	1	.655**	.495**	.239**	.403**
	Sig. (2-tailed)		0.000	0.000	0.000	0.000
	N	126	126	126	126	126
Level of awareness	Pearson Correlation		1	.625**	.365**	.501**
	Sig. (2-tailed)			0.000	0.000	0.000
	N		126	126	126	126
Hotel related factors	Pearson Correlation			1	.233**	.565**
	Sig. (2-tailed)				0.000	0.000
	N			126	126	126
Government incentives	Pearson Correlation				1	.513**
	Sig. (2-tailed)					0.000
	N				126	126
Availability of qualified human resource	Pearson Correlation					1
	Sig. (2-tailed)					
	N					**126**
**** Correlation is significant at the 0.01 level (2-tailed).**						

Regression analysis

Table 4 presents the regression summary and illustrates the results regarding the influence of various factors namely, the level of awareness, hotel-related factors, government incentives, and the availability of qualified human resources on the implementation of environmental accounting in hotels in the Eastern Province.

Table 4 The summary of regression analysis

Variable	R	R square	Unstandardized Coefficients B	Standardized Coefficients B	Sig
Level of awareness	0.655	0.429	4.7	0.655	0.000
Hotel related factors	0.495	0.245	8.789	0.495	0.000
Government incentives	0.239	0.057	11.444	0.239	0.007
Availability of qualified human resource	**0.403**	**0.162**	**7.921**	**0.403**	**0.000**

The correlation values (r) indicate the strength of the relationship between the dependent and independent variables. Specifically, the r value for the level of awareness is 0.655, indicating a strong positive correlation. Hotel-related factors have an r-value of 0.495, suggesting a moderate positive correlation. The r value for government incentives is 0.239, and for the availability of qualified human resources, it is 0.403, both indicating moderate positive correlations.

R-squared (R^2) values assess the goodness of fit and explanatory power of the model, representing the proportion of the total variation in environmental accounting implementation explained by the independent variables. The R^2 value for the level of awareness is 0.429, meaning that approximately 42.9% of the variation in environmental accounting practices is explained by this factor. The R^2 for hotel-related factors is 0.245, indicating that about 24.5% of the variation is explained by these factors. The R^2 for government incentives is 0.057, accounting for 5.7% of the variation, while the R^2 for the availability of qualified human resources is 0.162, explaining 16.2% of the variation.

Regarding the level of awareness, the coefficient value of 0.655 suggests that an increase in the level of awareness is associated with, on average, a 0.655 increase in the implementation of environmental accounting practices. Since the p-value is less than 0.05, it can be concluded that the level of awareness has a significant positive impact on environmental accounting. As a result, the null hypothesis (H_2o) is rejected, and the alternative hypothesis (H_2a) is accepted. This indicates a significant impact on the level of awareness of the implementation of environmental accounting practices in the hotels of the Eastern Province.

For hotel-related factors, the coefficient value of 0.495 indicates that increased attention to factors such as location, working capital, and the nature of the business is associated with, on average, a 0.495 increase in the implementation of environmental accounting practices. The p-value is less than 0.05, confirming that hotel-related factors have a positive and significant impact on environmental accounting. Therefore, the null hypothesis (H_4o) is rejected, and the alternative hypothesis (H_4a) is accepted, signifying a significant impact of hotel-related factors on the implementation of environmental accounting in the hotels of the Eastern Province.

The coefficient value for government incentives is 0.239, suggesting that increased attention to government incentives is associated with a 0.239 increase in environmental accounting implementation. However, the p-value exceeds 0.05, indicating that government incentives do not have a significant impact on environmental accounting. As such, the null hypothesis (H6o) is accepted, and the alternative hypothesis (H6a) is rejected, indicating that government incentives do not significantly affect environmental accounting practices in the hotels of the Eastern Province.

Finally, the coefficient value for the availability of qualified human resources is 0.403, indicating that increased attention to this factor is associated with a 0.403 increase in environmental accounting practices. Since the p-value is less than 0.05, it can be concluded that the availability of qualified human resources has a significant positive impact on environmental accounting. Thus, the null hypothesis ($H8_o$) is rejected, and the alternative hypothesis (H8a) is accepted, signifying that the availability of qualified human resources significantly influences the implementation of environmental accounting practices in the hotels of the Eastern Province.

5. Conclusion

Sri Lanka has strategically directed its efforts towards fostering a sustainable economy, balancing economic growth with environmental protection, and aligning with cultural and social factors. This approach emphasizes the perpetual connection between socio-economic development and environmental protection. However, like other developing nations, Sri Lanka faces challenges posed by climate change, pollution, and environmental degradation, which impact both the economy and the quality of life for its citizens (Climate Change Secretariat, 2016).

The contemporary trends in the hotel industry urge businesses to adjust their policies and strategies to adopt environmentally sustainable practices, including environmental accounting (EA). The implementation of environmental accounting is achievable when management's commitment to environmental issues is integrated into corporate environmental policies, and business operations adopt environmental management practices. Hotels must identify, estimate, record, and analyse environmental costs to optimize them. Furthermore, information about environmental costs and other performance indicators must be effectively communicated to stakeholders. The primary goal of this research is to identify the key factors influencing the implementation of environmental accounting in hotels.

The regression analysis reveals that the factors influencing the implementation of environmental accounting in hotels in the Eastern Province have a positive impact, in the following descending order: level of awareness, hotel-related factors, and availability of qualified human resources. The level of awareness has the strongest positive effect on the implementation of environmental accounting, followed by the availability of qualified human resources and hotel-related factors. Notably, government incentives did not have a significant impact on the implementation of environmental accounting in this study.

Based on these findings, several recommendations are proposed for improving environmental accounting practices in Sri Lanka's hotel sector:

Regulatory Measures: The Sri Lanka Tourism Development Authority (SLTDA) and the Central Environmental Authority (CEA) should consider developing legal frameworks that regulate and guide hotels in implementing environmental accounting (EA) and environmental management accounting (EMA). These regulations should encourage hotels to disclose EA and environmental performance information. The authorities should also focus on enforcing environmental laws, such as taxes and fines for environmental violations, and raising awareness through media campaigns on environmental protection.

Environmental Accounting Guidelines: Clear guidelines on environmental accounting should be developed for hotels of all sizes, including small and medium-sized enterprises (SMEs). These guidelines should be designed to promote voluntary and long-term adoption of EA in the hotel industry, especially in environmentally sensitive sectors.

Mandatory Environmental Accounting Disclosures: The government should consider making environmental accounting disclosures mandatory for companies, particularly those with significant environmental impacts. For instance, while not mandatory, the Japanese Ministry of the Environment has successfully encouraged companies to report environmental performance. A similar approach could be adopted in Sri Lanka, fostering reliable environmental disclosures in hotel annual reports.

Professional Training and Education: Professional associations and training institutions should play a pivotal role in promoting the benefits of EA and corporate social responsibility. Hotels should provide opportunities for accounting staff to participate in training programs, seminars, and international certifications in accounting and auditing (e.g., CIMA, ACCA, CA, CMA). This would enhance their knowledge and experience in environmental accounting, contributing to the effective implementation of EA.

Hotel Management Education: Hotel managers should learn from the experiences of others who have successfully implemented EA. This would help improve their understanding of EA and its integration into business strategies, particularly about "green" initiatives. Financial accountants and controllers should also take an active role in implementing EA by focusing on environmental accounting benchmarks and ensuring transparency in environmental performance measures.

This study focuses on hotels in the Eastern Province of Sri Lanka, and the scope could be expanded to a national level, encompassing all hotels across the country. Future research could also identify additional factors influencing environmental accounting practices in hotels. Furthermore, this research can serve as a reference for future studies in different local and international contexts.

The findings of this research provide valuable insights for hoteliers in the Eastern Province, encouraging them to implement environmental accounting practices. The research identifies the barriers to implementation and

emphasizes the importance of environmental accounting as a tool for sustainable economic development. By implementing EA, hotels can enhance their sustainability practices, promote tourism, and earn environmental certifications, which offer formal recognition to environmentally responsible hotels. Other hotels in different provinces can adopt the identified factors to reduce their environmental impact and contribute to protecting natural resources.

Hotels with significant environmental exposure should recognize the responsibility to protect the planet and promote policies that enhance sustainability. The research highlights how the future development of environmental accounting and sustainability practices can be integrated into the Sri Lankan context, contributing to the overall growth of the tourism industry while safeguarding the environment.

Competing internet : The authors declare that they have no competing interests.

Acknowledgements: - Authors are grateful to thank the referees for the useful comments also expressed sincere thanks to the editorial board for effort to publish this article.

References

Abeydeera, L.H.U.W. and Karunasena, G., 2019. Carbon emissions of hotels: The case of the Sri Lankan hotel industry. Buildings, Vol. 9, No.11, pp.227.

Afshar Jahanshahi, A. and Brem, A. (2018), “Antecedents of corporate environmental commitments: The role of customers”, International Journal of Environmental Research and Public Health, Vol. 15, No. 9, pp. 1-20.

Al-Hayek, K. (2013), “Internal environmental auditing in the Jordanian industrial corporations’ company (A field study)”, Dirasat Journal, Administrative Sciences, Vol. 40, No. 1, pp. 107-116.

Bandara, N. J. (2008), “Municipal solid waste management - The Sri Lankan case”, Proceedings of International Forestry and Environment Symposium, University of Sri Jayewardenepura, Sri Lanka, pp. 27-33.

Bandara, N. J. and Hettiaratchi, J. P. A. (2010), “Environmental impacts with waste disposal practices in a suburban municipality in Sri Lanka”, International Journal of Environment and Waste Management, Vol. 6, No. 2, pp. 107-116.

Bewley, K. and Li, Y. (2000), “Disclosure of environmental information by Canadian manufacturing companies: A voluntary disclosure perspective”, Advances in Environmental Accounting & Management, Vol. 1, pp. 1-18.

Chan, E. S., Okumus, F., Chan, W. and Koo, C. (2017), “An empirical study of environmental practices and employee ecological behaviour in the hotel industry”, Journal of Hospitality & Tourism Research, Vol. 41, No. 4, pp. 585-608.

Chathurangani, H. B. and Madhusanka, K. J. (2019), “Environmental management accounting (EMA) adoption level among listed manufacturing companies in Sri Lanka: Institutional theory perspective”, Research in Social Sciences, Vol. 1, pp. 1-12.

Chaturika, S. S. M. and Kalpani, G. (2020), “Environmental management accounting and waste management practices: A case of a manufacturing company”, Annals of Management and Organization Research (AMOR), Vol. 5, pp. 45-56.

Clarkson, P.M., Li, Y., Richardson, G.D. and Vasvari, F.P., (2008). Revisiting the relation between environmental performance and environmental disclosure: An empirical analysis. Accounting, organizations and society, 33(4-5), pp.303-327.

Glawe, U., Visvanathan, C. and Alamgiri, M. (2005), "Solid waste management in the least developed Asian countries – A comparative analysis", In International Conference on Integrated Solid Waste Management in Southeast Asian Cities, pp. 5-7.

Gray, R.H., (1993). Accounting for the environment and sustainability in lesser developed countries: an exploratory note. Research in Third World Accounting, 2, pp.387-399.

Gunarathne, N. and Liyanage, K.-H. (2013), "Adopting and implementing environmental management accounting (EMA) practices in the hotel sector: A Sri Lankan case", Paper presented at the EMAN Global Conference, Gold Coast, Queensland, Australia.

Gunarathne, N., Peiris, S., Edirisooriya, K. and Jayasinghe, R. (2015), "Environmental management accounting in Sri Lankan enterprises", Department of Accounting, University of Sri Jayewardenepura, Nugegoda, Sri Lanka.

Gunathilaka, D. and Gunawardana, K. D. (2019), "Environmental management practices on financial performance: With special reference to the rubber industry in Sri Lanka", Journal of Business Research and Insights, Vol. 5, No. 2, pp. 39-47.

Gunathilaka, D. and Gunawardana, K. D. (2019), "Environmental management practices on financial performance: With special reference to the rubber industry in Sri Lanka", Journal of Business Research and Insights, Vol. 5, No. 2, pp. 39-47.

Ha, V. T. (2022). "Factors Affecting The Implementation Of Environmental Management Accounting In Manufacturing Enterprises: Evidence From Vietnam", Journal of Positive School Psychology, Vol. 6, No. 10, pp. 3289-3305.

Hanan, S. S. (2014), "Accounting standard for environmental impact and disclosure in industrial institutions (A case study of Hama Bouziane-Constantine)", Unpublished Master Thesis, University of Constantine, Algeria.
Hoan, N. (2022), "Factors affecting environmental accounting in small and medium enterprises in Vietnam", Journal of Positive School Psychology, Vol. 6, pp. 16-23.

Ibrahim, K.Y., Usaini, M., & Elijah, S. (2021). Working Capital Management and Business Performance. Nigerian Journal of Marketing (NJM),Vol. 7, No. 1, pp.1-12.

Jack, B. K., Kousky, C., & Sims, K. R. E. (2008). Designing payments for ecosystem services: Lessons from previous experience with incentive-based mechanisms. Proceedings of the National Academy of Sciences, 105(28), 9465–9470. https://doi.org/10.1073/pnas.0705503104.

Janković, S. and Krivačić, D. (2014), "Environmental accounting as a perspective for hotel sustainability: A literature review", Tourism and Hospitality Management, Vol. 20, No. 1, pp. 103-120.

Khatter, A., White, L., Pyke, J. and McGrath, M., 2021. Stakeholders' influence on environmental sustainability in the Australian hotel industry. Sustainability, Vol.13, No. 3, pp.1351.

Lam, T.T.L., 2019. Factors affecting Disclosure of environmental accounting information in Vietnamese aquaculture enterprises. Ho Chi Minh City, Vietnam: Doctoral dissertation, University of Economics.

Lawrence, P.R. and Lorsch, J.W., 1967. Organization and environment: Managing differentiation and integration. (No Title).

Nethsarani, K. A. and Samudrage, D. N. (2021), "Factors affecting the implementation of environmental management accounting practices through new institutional sociology perspective: A case of an apparel manufacturer in Sri Lanka", Faculty of Management Studies and Commerce, University of Sri Jayewardenepura, Nugegoda, Sri Lanka.

Nguyen, T. D. (2021), "Factors affecting environmental accounting practices: A case study of food and beverage enterprises in Vietnam", The Journal of Asian Finance, Economics and Business, Vol. 8, No. 5, pp. 211-217.

Pilapitiya, S. (2012), "Impacts of open dumping and technical information on waste composting", [Interview], 15th October 2012, Sri Lanka.

Saleh, M. A. (2015), "Environmental awareness and its role in the application of environmental accounting disclosure in the Jordanian industrial companies", Public Participation and its Impact on Investor Decisions in the Amman Financial Market, Unpublished PhD Thesis, Al-Jinan University, Lebanon.

Saleh, M. M. A., Jawabreh, O. A. A., Alsarayreh, M. N., & Malkawi, E. (2018). Environmental accounting as a perspective for hotels of Aqaba Special Economic Zone Authority (ASEZA). Problems and Perspectives in Management, Vol.16, No.4, pp. 169-179.

Sandra, Dubra, J. and K., (2014), "Environmental accounting as a perspective for hotel sustainability: A literature review", Tourism and Hospitality Management, Vol. 20, pp. 103-120.

Sekaran, U., 1992. Research Methods for Business: A Skill Building Approach (2nd ed.). New York: Wiley & Sons, Inc.

Sharholy, M., Ahmad, K., Mahmood, G. and Trivedi, R. C. (2008), "Municipal solid waste management in Indian cities – A review", Waste Management, Vol. 28, No. 2, pp. 459-467.

Tu, J. C. and Huang, H. S. (2015), "Analysis on the relationship between green accounting and green design for enterprises", Sustainability, Vol. 7, No. 5, pp. 6264-6277.

Van Der Poll, H. M. (2022), "The barriers and drivers of environmental management accounting practices' adoption in developed and developing countries for sustainable development", Sustainable Development, Vol. 30, No. 5, pp. 1222-1234.

Zhou, S., Zhang, D., Lyu, C. and Zhang, H. (2018), "Does seeing 'mind acts upon mind' affect green psychological climate and green product development performance? The role of matching between green transformational leadership and individual green values", Sustainability, Vol. 10, No. 9, pp. 3206.